

REMARKS

Favorable and prompt allowance of the pending claims in the application is respectfully requested on the basis of the following particulars.

1. In the claims

Claim 6 is amended to recite that the orthopedic blank has an outer surface covered with hook receivable material. Support for this amendment is found in paragraph [0035] of the originally-filed specification.

Claims 25 and 40 are amended to recite that the strip is a non-woven material. Support is found in paragraph [0053] of the originally-filed specification.

Claims 6, 25, and 40 are amended to specify that the hook receivable material on the blank is adapted to receive the hook type patches of the strip. The claims are further amended to specify that the secondary holding arrangements are provided over the primary tacking arrangement, and that the primary tacking arrangement is removable and repositionable at any location along an axial length of the blank. Support for these amendments is found in paragraphs [0031] and [0035] of the originally-filed specification.

Claims 11 and 23 are amended as suggested by the Examiner to recite “said splint or support” in lines 3 and 2 of the claims, respectively.

Claim 11 is also amended to provide proper antecedent basis for the language “the web space between the thumb and forefinger.”

Claim 22 is amended to improve the clarity of the claim language.

Claim 44 is amended to recite the language “unbroken loop” which corresponds to the acronym UBL already present in the claim.

New claims 48, 49 and 50 recite that the non-woven material is hydrophobic.

Entry of the amendment to the claims is respectfully requested in the next Office communication.

2. Objection of claims 11 and 23

Reconsideration of this objection is respectfully requested in view of the amendment to claims 11 and 23 and the following remarks.

Claims 11 and 23 are amended as indicated above in the manner suggested by the Examiner to provide proper antecedent basis to the language “said splint” in the claims.

Accordingly, withdrawal of the rejection is respectfully requested in the next Office action.

3. Rejection of claims 11, 14, 22, 25 and 44 under 35 U.S.C. § 112 second paragraph

Reconsideration of this rejection is respectfully requested in view of the amendment to the claims and the following remarks.

Claim 11 is amended as indicated above to provide proper antecedent basis to the language “the web space between the thumb and forefinger.”

The Examiner rejects claims 14 and 25 asserting that the meaning of “exo-skeletal” is unclear. Applicant respectfully disagrees. The term exo-skeletal has an ordinary meaning. Applicant submits that one of ordinary skill in the art would understand the meaning of the term exo-skeletal in the context of the pending claims.

Claim 22 is amended as indicated above to clarify the limitations of the claim.

Claim 44 is amended as indicated above to recite the language “unbroken loop” which corresponds to the acronym UBL.

Accordingly, withdrawal of this rejection is respectfully requested in the next Office action.

5. Rejection of claims 6, 9, 14, 15, 18, 20-22, 25-27, 29, 40-42, 44, 46 and 47 under 35 U.S.C. § 103(a) as being unpatentable over U.S. patent 6,106,492 (*Darcey*) in view of U.S. patent 5,755,678 (*Parker*) and U.S. patent 6,042,557 (*Ferguson*)

Reconsideration of this rejection is respectfully requested in view of the amendment to independent claims 6, 25 and 40 and the following remarks which demonstrate that the proposed combination of *Darcey*, *Parker*, and *Ferguson* fails to render the pending claims *prima facie* obvious.

A. Combination of *Darcey*, *Parker*, and *Ferguson* Does Not Teach Every Feature

In observing amended claims 6, 25 and 40, the claims are directed to a splint or support having at least one strip of non-woven material for temporarily holding an impregnated orthopedic blank on an injured part of a patient's anatomy. The non-woven material is extremely lightweight, stretchable, and low profile.

Woven materials are typically thicker and stronger than low profile non-woven materials. As such, the strips allow the blank to be held in place but are lightweight and stretchable enough such that the strips do not deform the blank by causing a tourniquet effect as the impregnated blank is curing. The low profile aspect of the strips additionally aids in preventing deformation of the blank. As a result an enhanced fit of the blank with the anatomy of the patient is achieved.

None of the cited references contemplate providing a non-woven material as recited in the pending claims. Accordingly, the proposed combination of *Darcey*, *Parker*, and *Ferguson* fails to disclose the non-woven material particularly required by amended claims 6, 25 and 40.

The rejection admits that *Darcey* does not disclose a non-woven material and instead relies on the strap 124 (Fig. 18) in *Parker* for this teaching. However, there is simply no teaching in *Parker* that the strap is made of a non-woven material.

Applicant respectfully requests the Examiner to point out where in *Parker* it is disclosed that the strap is made of a non-woven material.

In contrast to *Parker*, the strip as recited in the pending claims is made of a non-woven material. As such, the proposed combination of *Darcey*, *Parker*, and *Ferguson* does not teach every feature recited in amended claims 6, 25 and 40, and would not result in the strip recited in amended claims 6, 25 and 40.

B. No Motivation to Combine *Darcey*, *Parker*, and *Ferguson*

The alleged *prima facie* case of obviousness established in the rejection by combining *Darcey*, *Parker* and *Ferguson* also lacks the requisite motivation or suggestion to properly combine the references.

In establishing a *prima facie* case of obviousness, it is incumbent upon the examiner to provide a reason why one of ordinary skill in the art would have been led to modify a prior art reference or to combine reference teachings to arrive at the claimed invention. See *Ex parte Clapp*, 227 USPQ 972, 973 (Bd. Pat. App. & Int. 1985). To this end, the requisite motivation must stem from some teaching, suggestion or inference in the prior art as a whole or from the knowledge generally available to one of ordinary skill in the art and not from the appellant's disclosure. See, for example, *Uniroyal, Inc. v. Rudkin-Wiley Corp.*, 837 F.2d 1044, 1052, 5 USPQ2d 1434, 1439 (Fed. Cir.), cert. denied, 488 U.S. 825 (1988).

The motivation, suggestion or teaching may come explicitly from statements in the prior art, the knowledge of one of ordinary skill in the art, or, in some cases the nature of the problem to be solved. In addition, the teaching, motivation or suggestion may be implicit from the prior art as a whole, rather than expressly stated in the references. See *WMS Gaming, Inc. v. International Game Tech.*, 184 F.3d 1339, 1355, 51 USPQ2d 1385, 1397 (Fed. Cir. 1999). The test for an implicit showing is what the combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 425 (CCPA 1981).

As noted above, none of the cited references contemplate providing a strip of non-woven material as recited in the pending claims. It is also submitted that the motivation to provide the particular strip of non-woven material of the pending claims to a splint or support is not within the general knowledge of one having ordinary skill in the art. Accordingly, and as will be pointed out below, there is insufficient motivation to combine the teachings in *Darcey*, *Parker*, and *Ferguson*.

Darcey discloses a splint for being fitted to the hand or wrist of a patient as described in column 2, lines 47-60. In observing Figs. 10 and 11, the straps 26 secure the splint on the patient and are overwrapped with the bandage 34. The straps are made of a woven or knitted material (col. 7, lines 5-10) comprising a D-ring 30 secured to one end of the strap.

In clear distinction to the pending claims, *Darcey* is not concerned with providing a low profile stretchable material for temporarily tacking a splint to a patient. As mentioned above, woven materials are typically thicker and stronger than low profile non-woven materials. Indeed, the strap in *Darcey* is a thick durable strap that is not low profile.

This thick strap of woven material in *Darcey*, which is not significantly stretchable, may create a tourniquet effect on the splint, or the D-ring may impress upon the splint while curing and cause unwanted deformation of the splint. Accordingly, *Darcey* teaches away from using a stretchable, low profile material of insufficient strength to rigidly immobilize the splint for long-term use.

Turning to *Parker*, the rejection relies on the strap 124 in *Parker* for the teaching of a non-woven stretchable strip. However, as mentioned above, *Parker* does not disclose a non-woven material. Instead, *Parker* discloses a sole primary securing strap 124 for permanently securing the shin guard 120 on a patient. Indeed, in observing Fig. 18, the strap 124 is the sole securing means for holding the shin guard on a patient.

As *Darcey* teaches that the straps 26 are temporary securing means intended to be overwrapped with the bandage 34 to permanently secure the splint, and *Parker* teaches only a sole primary securing strap 124, it is submitted that one of ordinary skill in the art would only understand to provide the strap in *Parker* to *Darcey* in place of both the straps 26 and the bandage 34, as the sole primary securing means.

Accordingly, there is no motivation, suggestion, or rationale to add the strap in *Parker*, which is disclosed as only a sole primary securing strap without use with a secondary securing means covering the strap, to *Darcey* as a temporary securing means intended to be covered by a secondary primary securing means.

Turning now to *Ferguson*, the rejection relies on the straps 26 in *Ferguson* as a teaching of non-rectangular strips having opposed end portions having hook type patches. *Ferguson* discloses a splint for securing to the leg of an animal as described in column 6, lines 34-45. In observing Figs. 9 and 10, the straps 26 secure the splint 70 on the leg of the animal. In fact, the straps 26 are the sole securing means for holding the splint in place and are not intended to be covered by a secondary securing means.

It is submitted that one of ordinary skill in the art would only understand to provide the straps in *Ferguson* to *Darcey* in place of both the straps 26 and the bandage 34 in *Darcey*, as the sole primary securing means.

Accordingly, there is no motivation, suggestion, or rationale to add the strap in *Ferguson*, which is disclosed as only a sole primary securing strap without use with a secondary securing means covering the strap, to *Darcey* as a temporary securing means intended to be covered by a secondary securing means.

Therefore, since *Parker* and *Ferguson* disclose only sole primary securing means, it is submitted that one having ordinary skill in the art would not have added the primary securing means in *Parker* and *Ferguson* to *Darcey* as a temporary tacking arrangement.

6. Rejection of claims 10, 11, 28, 43 and 45 under 35 U.S.C. § 103(a) as being unpatentable over U.S. patent 6,106,492 (*Darcey*) in view of U.S. patents 5,755,678 (*Parker*) and 6,042,557 (*Ferguson*) and further in view of U.S. patent 6,139,513 (*Grim*)

Reconsideration of this rejection is respectfully requested in light of the observations noted above and the amendment to independent claims 6, 25 and 40.

It is submitted that *Grim* does not make up for the shortcomings of *Darcey*, *Parker* and *Ferguson* and thus claims 10, 11, 28, 43 and 45 are patentable at least in view of their dependency from independent claims 6, 25 and 40.

Accordingly, withdrawal of this rejection is respectfully requested.

7. Rejection of claims 23 and 24 under 35 U.S.C. § 103(a) as being unpatentable over U.S. patent 6,106,492 (*Darcey*) in view of U.S. patents 5,755,678 (*Parker*) and 6,042,557 (*Ferguson*) and further in view of U.S. patent 5,195,944 (*Schlogel*)

Reconsideration of this rejection is respectfully requested in light of the observations noted above and the amendment to independent claims 6, 25 and 40.

It is submitted that *Schlogel* does not make up for the shortcomings of *Darcey*, *Parker* and *Ferguson* and thus claims 23 and 24 are patentable at least in view of their dependency from independent claims 6, 25 and 40.

Accordingly, withdrawal of this rejection is respectfully requested.

8. New Claims 48, 49 and 50

New claims 48, 49 and 50 recite that the non-woven material is hydrophobic. This prevents the non-woven material from becoming wet and heavy from being soaked with water when the orthopedic blank is submerged in water to activate the blank.

None of the references disclose a hydrophobic non-woven material. Accordingly, allowance of new claims 48, 49 and 50 is respectfully requested.

9. Conclusion

As a result of the amendment to the claims, and further in view of the foregoing remarks, it is respectfully submitted that the application is in condition for allowance. Accordingly, it is respectfully requested that every pending claim in the present application be allowed and the application be passed to issue.

If any issues remain that may be resolved by a telephone or facsimile communication with the applicants' attorney, the examiner is invited to contact the undersigned at the numbers shown below.

BACON & THOMAS, PLLC
625 Slaters Lane, Fourth Floor
Alexandria, Virginia 22314-1176
Phone: (703) 683-0500
Facsimile: (703) 683-1080

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Respectfully submitted,

/Justin J. Cassell/

JUSTIN J. CASSELL
Attorney for Applicants
Registration No. 46,205